The Hendricks Park Forest Management Plan

...the forest...

...and the trees...

Native Plant Alternatives for Landscaping

Stewardship of the forested park area for present and future generations is a key piece of the *Hendricks Park Forest Management Plan*. Conservation of this valuable resource is accomplished by protecting the native forest ecosystem where it is intact, and restoring it where it has suffered from degradation. The park's native ecosystem is most susceptible to damage from non-native, invasive plants.

What are non-native, invasive plants and why are they a problem?

Non-native, invasive plants are exotic species that have been introduced to the area either intentionally or accidentally and have begun to spread in an uncontrolled way. Outside of their native habitat and without any natural control mechanisms, these plants can cause serious damage to our own native forests. Invasive plants crowd out native species, preventing regeneration. Left unchecked, they reduce the biodiversity in the native forest and interfere with natural processes as exotic weeds begin to dominate.

What's more, the balance of native plants and animals is also affected. Invasive plants limit bird, mammal and amphibian populations by reducing the availability of suitable living and hiding space (cover) and food sources. In other words, as exotic plants take over forested areas, they reduce the habitat that native animals depend on, thereby reducing the population of those animals. More than 20 invasive plants have been documented in Hendricks Park, but the species of most concern are:

English ivy, Hedera helix English holly, Ilex aquifolium Portugese laurel, Prunus lusitanica Scot's broom, Cytisus scoparius Herb-Robert, Geranium robertianum Greater periwinkle, Vinca major Himalaya blackberry, Rubus discolor English laurel, Prunus laurocerasus Horse-chestnut, Aesculus hippocastanum Sweet cherry, Prunus avium Nipplewort, Lapsana communis Lesser periwinkle, Vinca minor

What's happening in the park?

In Hendricks Park and other natural areas within the city, community volunteers, staff and youth crews are actively involved in habitat restoration projects. One of the most important parts of that work is managing non-native, invasive plants. Successful habitat restoration begins with removal of invasive vegetation such as ivy. Then if nearby native vegetation is not sufficient to move into the cleared area, it is replanted with native species to prevent other problem weeds from moving in. Afterwards, regular follow up in cleared areas is essential to maintain the work that was accomplished.



Northwest Youth Corps at Hendricks Park, Summer 2001

English ivy can move back and forth across property lines, such as between the park and adjacent properties, re-entering areas that have been cleared. We'll be most successful in restoring and maintaining the forest ecosystem in our parks if invasive plants on adjoining properties are removed and replaced with native plants.

What's being done right now?

There are a number of initiatives underway with the objective of restoring the native forest ecosystem.

- Youth crews from Northwest Youth Corps and Metro Youth Corps, have been working
 under the direction of park staff to remove non-native, invasive tree and shrub
 species such as horse-chestnut, cherry, English laurel, Portugese laurel and holly.
- Youth crews are also working on ivy and blackberry removal projects.
- Volunteers from the neighborhood and throughout the city are working on ivy and blackberry removal projects, as well as replanting with native species.

What can we do?

By working together, we can bring English ivy and other invasive, non-native plants under control in the park and other open spaces. Although no single approach will work by itself, a coordinated effort will make a difference. Here are some suggestions:

- Stop the introduction of English ivy, Periwinkle, Himalayan blackberries and other invasive plants into Hendricks Park. City ordinances prohibit dumping yard debris inside park boundaries, or even along fence lines or unfenced property lines that abut the park.
- Integrate native plants into the yard in place of non-native, invasive species. Some non-native plants are aggressive invaders, while many are attractive additions to the home garden. The staff here at the park will be happy to provide information on what plants might be best, both for your yard and your park.
- Use the table inside this brochure to help identify native plants that may work for the special conditions and needs of your yard.
- Volunteer with other neighbors and concerned citizens to help with ivy and blackberry removal in the park.

Is there anything to be concerned about when removing invasive plants and integrating native species into the landscape?

When English ivy is removed, there is a tendency for other invasive plants to move into the void. If there are not enough native plants and native seed stock in the area to recolonize the clearing naturally, replanting with additional native species and/or applying mulch is necessary. Follow-up removal of invasive plants is also important.

At home, removing invasive plants provides more space to replant with native species. If you are considering "wild flower" seed packets be aware that some of the "eco-mixes" may contain invasive non-native species. Please refer to the table inside the brochure for suggestions about native plant alternatives. As with cleared areas in the park, the use of mulch on newly cleared landscape is a good way to prevent the invasion of other weed species.

The Native Plant Society of Oregon (NPSO) has devised a set of guidelines for gardening with native plants. These guidelines address issues ranging from selecting the proper plant for a particular site in the yard to the ethics of native plant propagation. "Guidelines for Use of Native Plants for Gardening" can be found online in the March 2001 NPSO *Bulletin* at http://www.NPSOregon.org; or by contacting Nick Otting, president of the local Emerald Chapter of the Native Plant Society of Oregon at 334-4499 or ottingn@efn.org.

What native species can we use in place of invasive plants?

By landscaping with native plants, we are able to work within the limits of the natural environment. Soil, soil moisture, sunlight and slope will determine much of what can and can't be planted in various areas. For instance, some plants may need summer water, while others may be damaged by it. Therefore, it's essential to consider the varying water needs of the plants that are used and their location in relation to one another.

Before choosing the species consider how and where a plant will be used. Is the site shady or in full sun? Does it tend to be very dry in that space, or does the slope and soil combination result in a spot that is constantly wet? What role will the plant play in the landscape? For example, will the plant provide a weed-preventing groundcover or help prevent erosion of soil on a steep slope? Is a large shade tree desired in the long run, or a group of shrubs to provide a native hedge? Often, non-native, invasive species are used to try to achieve these objectives. In some cases, non-natives serve the specific purpose well, but their potential for damage outweighs their benefits. In other cases, these plants don't even meet the objective. Let's take a closer look at some frequent landscaping needs.

Slope stability and erosion control: A common myth is that English ivy is a good choice for stabilizing slopes and preventing erosion. In fact, it produces shallow roots that tend to grow on the same plane in the soil. In addition, ivy's dense foliage collects considerable moisture from rain, snow or ice. The extra weight may actually contribute to slope failure during severe weather. Planting a number of different plants that will root in different soil layers is important for successful slope stabilization and erosion control. For instance, a combination of ground covers, shrubs and small trees that root at different depths in the soil will tend to hold that soil much more effectively. One effective mix of native plants might include dwarf Oregon-grape, sword fern, ninebark and vine maple.

Ground cover: Finding a ground cover that prevents other unwanted plants from invading manicured garden space is often a priority. Though ivy meets that challenge, it is an uncontrollable invader itself, so the cure becomes worse than the problem. Alternatives to ivy include native sedges, wild-ginger, wild strawberry and inside-out flower.

Privacy: English and Portugese laurel can provide thick hedges, but require tedious and constant pruning to keep under control. Their seeds spread rapidly into the surrounding native forest, creating dense populations and squeezing out local species that provide critical habitat for wildlife. A native hedge might include a few species planted together such as snowberry, osoberry and tall Oregon-grape.

Attracting birds and butterflies and providing food for wildlife: Many people believe that despite its invasive nature, ivy at least provides a food source for local bird populations. In fact, it's thought that ivy berries are slightly toxic to native song birds. However, many native species such as ninebark, ocean spray, red elderberry, and snowberry do attract butterflies and/or provide food for native birds and other wildlife.



Red elderberry, Sambucus callicarpa

Native Plant Alternatives for Landscaping

COMMON NAME	B OTANICAL NAME	Light	Soil Moisture	Навіт	Values
Trees	A	/ 42 . 1 . 1 . 1 .		1	11.1.1
Big leaf maple	Acer macrophyllum	sun/partial shade	moist		birds, leaves attractive
Bitter cherry	Prunus emarginata	sun/partial shade	moist	large deciduous tree	
Pacific dogwood Pacific madrone	Cornus nuttallii	partial shade/shade	moist	evergreen tree	birds, flowers
	Arbutus menziesii	sun/partial shade	dry	evergreen tree	birds, flowers, leaves
Oregon white oak	Quercus garryana	sun/partial shade	moist/dry	large deciduous tree	birds, leaves (autumn)
Small trees & shrubs					
Cascara buckthorn	Rhamnus purshiana	partial shade/shade	moist	small deciduous tree	
Dwarf Oregon-grape	Berberis nervosa	sun/partial shade	moist/dry	small evergreen	birds, butterflies, flowers
Evergreen huckleberry	Vaccinium ovatum	partial shade/shade	moist		fruit for birds, thick foliage
Mock orange	Philadelphus lewisii	sun/partial shade	moist/dry	deciduous shrub	butterflies, flowers (low-growing species)
Ninebark	Physocarpus capitatus	partial shade	moist	deciduous shrub	summer flowers
Nootka rose	Rosa nutkana	sun/partial shade	wet/moist	deciduous shrub	birds, butterflies, flowers
Ocean spray	Holodiscus discolor	sun/partial shade	moist/dry	deciduous shrub	birds, butterflies, flowers
Osoberry	Oemleria cerasiformis	partial shade/shade	moist	tall deciduous shrub	important bird food
Red elderberry	Sambucus callicarpa	sun/partial shade	moist/dry	deciduous shrub	excellent bird plant
Red flowering currant	Ribes sanguineum	sun/partial shade	moist/dry	deciduous shrub	birds, butterflies, flowers (good for hummingbird
Redstem ceonothus	Ceonothus sanguineus	sun/partial shade	moist/dry	deciduous shrub	birds, butterflies, leaves
Salal	Gaultheria shallon	partial shade/shade	moist	evergreen low shrub	tall ground cover
Serviceberry	Amelanchier alnifolia	sun/partial shade	moist/dry	med. deciduous shrub	birds, butterflies, flowers
Snowberry	Symphoricarpos albus	partial shade/shade	moist	med. deciduous shrub	fruit provides bird food
Spirea	Spirea douglasii	partial shade/shade	moist	tall deciduous shrub	
Tall Oregon-grape	Berberis aquifolium	sun/partial shade	moist/dry	deciduous shrub	birds, butterflies, flowers, Oregon state flower
Thimbleberry	Rubus parviflorus	partial shade/shade	moist	deciduous shrub	birds, butterflies, leaves
Vine maple	Acer circinatum	partial shade/shade	moist	small deciduous tree	bright fall color
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Herbaceous plants (perenni					
Baneberry	Actaea rubra	sun to shade	moist	perennial	
Bleeding heart	Dicentra formosa	partial shade/shade	moist	perennial	butterflies, pretty flower
Blue wildrye	Elymus glaucus	sun	moist	perennial grass	
Camas	Camassia leichtlinii	sun/partial shade	moist	perennial	showy, blue flowers
Candy-flower	Claytonia sibirica	partial shade/shade	moist	annual	groundcover
Dewey's sedge	Carex deweyana	partial shade/shade	wet/moist	perennial	good erosion control
False Solomon's seal	Smilacina racemosa	partial shade/shade	moist	perennial	tall groundcover, butterflies, flowers, leaves
Farewell-to-spring	Clarkia amoena	sun	dry	perennial	flowers, butterflies
Fawn-lily	Erythronium oregonum	partial shade/shade	moist	perennial	showy, pale yellow flowers
Foamflower	Tiarella trifoliata	shade	moist	perennial	good groundcover
Fringe cup	Tellima grandiflora	partial shade/shade	moist	perennial	good groundcover
Goat's beard	Aruncus dioicus	partial shade/shade	moist	perennial	žin A
Hooker's fairy bells	Prosartes (Disporum) hookeri	partial shade/shade	moist	perennial	delicate, bell-like flowers
Inside-out flower	Vancouveria hexandra	partial shade/shade	moist	perennial	groundcover, flowers
Lupine	Lupinus polyphyllus	sun	moist/dry	perennial	flowers
Maiden-hair fern	Adiantum pedatum	shade	wet/moist	perennial	delicate, lacy groundcover
Miner's lettuce	Claytonia perfoliata	shade	moist	annual	groundcover
Mule's ears	Wyethia angustifolia	sun	moist/dry	perennial	
Oregon iris	Iris tenax	sun/partial shade	moist/dry	perennial	showy, purple flowers
Pig-a-back plant	Tolmiea menziesii	sun/partial shade	moist/wet	perennial	good groundcover, generally evergreen
Red columbine	Aquilegia formosa	sun/partial shade	moist/dry	perennial	flowers, butterflies
Rose checker-mallow	Sidalcea virgata	sun/partial shade	moist	perennial	butterflies, flowers, leaves
Saxifrage	Saxifraga oregana	shade	wet	perennial	
Slender cinquefoil	Potentilla gracilis	sun	moist	perennial	groundcover, yellow flowers, open areas
Slough grass	Carex obnupta	shade	wet	perennial	bank stabilization (can be invasive & big)
Star-flowered Solomon's seal	Smilacina stellata	partial shade/shade	moist	perennial	tall groundcover, butterflies, flowers, leaves
Sword fern	Polystichum munitum	partial shade/shade	moist	perennial	lush, easy to grow groundcover, evergreen
Tall larkspur	Delphinium trolliifolium	partial shade/shade	moist	perennial	butterflies, flowers
Tall meadow-rue	Thalictrum occidentale	shade	moist	perennial	tall, graceful, showy flowers
Tall fileddow Tuc	Deschampsia cespitosa	sun/partial shade	wet	perennial	
			wet/moist	perennial	lush groundcover in moist shade
Tufted hairgrass	Hydrophyllum tenuines	partial snade/snade	WEITHUISI		TUSH STOUTHUCOVEL III HIOISI SHARE
Tufted hairgrass Water leaf	Hydrophyllum tenuipes Asarum caudatum	partial shade/shade		_ <u>+</u>	
Tufted hairgrass Water leaf Wild-ginger	Asarum caudatum	partial shade/shade	moist	perennial	good groundcover
				_ <u>+</u>	

Table adapted from Salix Associates, November 1999